

TEN YEARS OF HEU TRANSPARENCY COOPERATION BETWEEN THE UNITED STATES AND RUSSIAN FEDERATION

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Abstract

This year marks the tenth anniversary of the signing of the Protocol on HEU Transparency Arrangements under the HEU Purchase Agreement. In furtherance of the Agreement, the United States and Russian Federation are implementing reciprocal transparency arrangements to assure both countries that the terms of the Agreement are being met. An important step was taken on March 18, 1994, with the signing of the Transparency Protocol. Signature of this Protocol and its implementing annexes allows for experts to visit facilities in the U.S. and Russia to monitor processing and handling of material subject to the Agreement. Experts from a list of 100 Transparency Monitors for each country conduct a series of inspections at Russian nuclear facilities, U.S. gaseous diffusion plants and U.S. fuel fabrication facilities to ensure that highly-enriched uranium (HEU) derived from Russian weapons is downblended to low enriched uranium (LEU) in Russia, and subsequently shipped to the United States for use as power reactor fuel. The United States conducts up to six monitoring visits per year to each of four Russian uranium-processing facilities. Monitors seek to ensure that material derived from Russian nuclear weapons is downblended and made unavailable for weapons use. Over the twenty-year Agreement, 500 metric tons of HEU will be downblended to LEU. Russian monitors inspect gaseous diffusion plants where the material is first received and stored, and the fuel fabricators to which the material is subsequently transferred to confirm that the Russian-derived LEU is used for peaceful purposes in the United States. This paper discusses the Transparency Protocol and annexes, the significance of the transparency measures established in those documents, and the evolution of transparency cooperation throughout the negotiating process. The paper highlights two recently negotiated milestones--establishing transparency monitoring at the U.S. gaseous diffusion plant in Paducah, Kentucky, and installation of transparency equipment at a Russian downblending facility in Seversk, Russia. The success and lessons learned in transparency negotiations under the HEU Purchase Agreement establish a benchmark for future nonproliferation initiatives.